

Amendments to the Claims

Please amend claims 1-3, 6, 7, 20, 25-27, 30, 31, 33, 43-46 as marked below. This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) An object having an associated authentication marker comprising:
 - an object having a first surface;
 - an authentication marker disposed on said first surface of said object;
 - said authentication marker comprising:
 - an electrophoretic display medium having a display state, a first surface, a second surface, and a plurality of electrophoretic particles disposed between said first and second surfaces; and
 - a first electrode disposed adjacent said first surface of said electrophoretic display medium;
 - wherein said display state changes as a result of migratory movement by said electrophoretic particles in response to an electric field applied through said first electrode and to said display medium.
2. (currently amended) The object of claim 1 further comprising a second electrode disposed adjacent to said second surface of said electrophoretic display medium.
3. (currently amended) The object of claim 2 wherein at least one of said first electrode and said second electrode is disposed in a pattern forming a text.
4. (original) The object of claim 2 wherein at least one of said first electrode and said second electrode is disposed in a pattern forming an image.

5. (original) The object of claim 2 wherein at least one of said first electrode and said second electrode is substantially clear.
6. (currently amended) The object of claim 2 wherein said electrical ~~signal~~ field comprises an electrical field applied between said first electrode and said second electrode.
7. (currently amended) The object of claim 1 wherein said electrophoretic display medium is disposed in a pattern forming a text.
8. (original) The object of claim 1 wherein said electrophoretic display medium is disposed in a pattern forming an image.
9. (original) The object of claim 1 wherein said electrophoretic display medium comprises at least one microencapsulated electrophoretic particle.
10. (original) The object of claim 1 wherein said display state is an optical property.
11. (original) The object of claim 10 wherein said change in said display state comprises a change to a substantially transparent optical property.
12. (original) The object of claim 10 wherein said change in said display state comprises a change to a substantially opaque optical property.
13. (original) The object of claim 1 wherein said display state is an impedance.
14. (original) The object of claim 1 wherein said change in said display state comprises a change to reveal text obscured by said electrophoretic display medium.
15. (original) The object of claim 1 wherein said change in said display state comprises a change to reveal an image obscured by said electrophoretic display medium.
16. (original) The object of claim 1 wherein said electrophoretic display medium is disposed on said first electrode.

17. (original) The object of claim 16 wherein said first electrode is a conductive substrate.

18. (original) The object of claim 1 wherein said object is selected from the group consisting of currency, stock certificates, bond certificates, negotiable instruments, debit cards, credit cards, and smart cards.

19. (original) The object of claim 1 wherein said authentication marker is affixed to said first surface of said object.

20. (currently amended) The object of claim 1~~2~~ further comprising a second electrode adapted to interact with said authentication marker wherein said display state changes in response to an electrical signal communicated between said first electrode and said second electrode.

21. (original) The object of claim 20 wherein said second electrode is an electrostatic head.

22. (original) The object of claim 20 wherein said second electrode is a charged stylus.

23. (original) The object of claim 20 wherein said second electrode is in communication with a validation machine.

24. (original) The object of claim 1 further comprising a timer in communication with said authentication marker.

25. (currently amended) An authentication marker for association with an object, said authentication marker comprising:

an electrophoretic display medium having a display state, a first surface, a second surface, and a plurality of electrophoretic particles disposed between said first and second surfaces; and

a first electrode disposed adjacent said second surface;

wherein said display state changes as a result of migratory movement by said electrophoretic particles in response to an electric field applied through said first electrode to said display medium.

26. (currently amended) A secure document comprising:

a conductive substrate having a surface and having a message disposed on said surface; and

an electrophoretic display medium comprising a plurality of electrophoretic particles, said display medium having a first display state and a second display state and being disposed adjacent said conductive substrate;

wherein said first display state changes to reveal said message as a result of migratory movement by said electrophoretic particles in response to a first electrical signal communicated to said conductive substrate, and said second display state changes to obscure said message in response to a second electrical signal communicated to said conductive substrate.

27. (currently amended) The secure document of claim 26 wherein said message comprises a text.

28. (original) The secure document of claim 26 wherein said message comprises an image.

29. (original) The secure document of claim 26 wherein said electrophoretic display medium comprises at least one microencapsulated electrophoretic particle.

30. (currently amended) A secure document comprising:

a substrate having a surface and having a message disposed on said surface;

an electrophoretic display medium comprising a plurality of electrophoretic particles, said display medium having a first display state and a second display state and being disposed adjacent said substrate; and

a first electrode disposed adjacent said electrophoretic display medium;
wherein said first display state changes to reveal said message as a result of migratory

movement by said electrophoretic particles in response to a first electrical signal communicated to said first electrode, and said second display state changes to obscure said message in response to a second electrical signal communicated to said first electrode.

31. (currently amended) The secure document of claim 30 wherein said message comprises a text.

32. (original) The secure document of claim 30 wherein said message comprises an image.

33. (currently amended) The secure document of claim 30 wherein said message is ~~comprised of~~ composed by a conductive ink.

34. (original) The secure document of claim 33 wherein at least one of said first electrical signal and said second electrical signal comprises an electrical field applied between said first electrode and said conductive ink.

35. (original) The secure document of claim 30 further comprising a second electrode disposed adjacent said substrate and adjacent said electrophoretic display medium.

36. (original) The secure document of claim 35 wherein at least one of said first electrical signal and said second electrical signal comprises an electrical field applied between said first electrode and said second electrode.

37. (original) The secure document of claim 30 further comprising a second electrode adapted to interact with said electrophoretic display medium.

38. (original) The secure document of claim 37 wherein said second electrode is an electrostatic head.

39. (original) The secure document of claim 37 wherein said second electrode is a charged stylus.

40. (original) The secure document of claim 37 wherein said second electrode is in communication with a validation machine.

41. (original) The secure document of claim 30 further comprising a timer in communication with said electrophoretic display medium.

42. (original) The secure document of claim 30 wherein said electrophoretic display medium comprises at least one microencapsulated electrophoretic particle.

43. (currently amended) A method for authenticating an object comprising the steps of:

providing an object having a surface and having an authenticating marker disposed adjacent said surface, said authenticating marker comprising at least one electrode and an electrophoretic display ~~media~~medium having a display state and a plurality of electrophoretic particles;

applying an electric field to said display ~~media~~medium of authenticating marker to effect a change in said display state through migratory movement of said electrophoretic particles; and

authenticating said object by said change in display state.

44. (currently amended) A method for securing a substrate comprising the steps of:
providing a substrate having a surface;

providing an electrophoretic display ~~media~~medium having at least one display state and disposed adjacent said surface; said substrate and the display ~~media~~medium forming a message, said display ~~media~~medium comprising a plurality of electrophoretic particles;

providing at least one electrode disposed adjacent said electrophoretic display ~~media~~medium;

applying a first electrical signal to said at least one electrode to effect migratory movement by said electrophoretic particles to change said at least one display state to obscure said message; and

applying a second electrical signal to said at least one electrode to change said at least one display state to reveal said message.

45. (currently amended) A method for securing a document comprising the steps of:
providing a secure document comprising a substrate having a surface;
disposing a message on said surface, said message comprising a conductive ink;
disposing an electrophoretic display ~~media-medium~~ having a display state adjacent said surface, said display ~~media-medium~~ comprising a plurality of electrophoretic particles[.,,];

providing at least one electrode adapted to interact with said secure document;
and

communicating a first electrical signal between said conductive ink and said at least one electrode to effect migratory movement by said electrophoretic particles to change said display state to shield said message.

46. (currently amended) A method for securing a document comprising the steps of:
providing a substrate having a surface and a message disposed on said surface;
disposing a shield on said surface, said shield comprising a first clear electrode, an electrophoretic display ~~media-medium~~ having a display state and disposed on the first electrode, and a second electrode disposed adjacent the display ~~media-medium~~, said display medium comprising a plurality of electrophoretic particles; and

communicating a first electrical signal between said first clear electrode and said second electrode to shield said message through migratory movement of said electrophoretic particles.